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Application No. 10/537,310
Amendment dated June 28, 2007
Reply to Office Action of February 5, 2007

Docket No.: NY-GRYN 223-US

REMARKS

Specification has been objected for allegedly containing embedded hyperlink (www.yahoo.com) and use of the trademark Apache. Accordingly, the specification has been amended to delete reference to www.yahoo.com. Regarding, the alleged use of trademark Apache. As noted in the attached printout from Trademark Electronic Search System (TESS), Apache Software Foundation has only one trademark filing and it is for "SPAMASSASSIN." That is, Apache Software Foundation has no trademark filing for alleged trademark "Apache." Additionally, as shown in the attached printout from the Apache Software Foundation website, they use the term "Apache" without capitalization and without any trademark symbols (i.e., TM, SM, ®). Accordingly, applicant use of the term "Apache" in the specification is consistent with Apache Software Foundation's use of the term "Apache." In view of the foregoing, applicant respectfully requests that the objection to the specification be withdrawn.

Claims 10-22 have been rejected under 35 U.S.C. § 112, second paragraph, for indefiniteness. Claims 10 and 15 have been amended in good-faith to satisfy such objections. Accordingly, applicant respectfully requests that this rejection be withdrawn.

Claims 10-22 have been rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by U.S. Patent No. 7,013,482 to Krumel ("Krumel"). Applicant respectfully traverses this rejection.

A rejection based on 35 U.S.C. §102 requires that the cited reference disclose each and every element covered by the claim. *Electro Medical Systems S.A. v. Cooper Life Sciences Inc.*, 32 U.S.P.Q.2d 1017, 1019 (Fed. Cir. 1994); *Lewmar Marine Inc. v. Barient Inc.*, 3 U.S.P.Q.2d 1766, 1767-68 (Fed. Cir. 1987), *cert. denied*, 484 U.S. 1007 (1988); *Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 631, 2 U.S.P.Q.2D 1051, 1053

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(Fed. Cir.), *cert. denied*, 484 U.S. 827 (1987). The Federal Circuit has mandated that 35 U.S.C. 102 requires no less than "complete anticipation ... [a]nticipation requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in the claim." *Connell v. Sears, Roebuck & Co.*, 772 F.2d 1542, 1548, 220 U.S.P.Q. 193, 198 (Fed. Cir. 1983); *See also, Electro Medical Systems*, 32 U.S.P.Q. 2d at 1019; *Verdegaal Bros.*, 814 F.2d at 631.

The Examiner has failed to establish that Krumel is an anticipatory reference under 35 U.S.C. §102(e) because Krumel does not teach or suggest none of the steps claimed in independent claims 10 and 15. Particularly, Krumel does not teach or suggest defining a finite state machine for each application protocol, modeling finite state machines established for each application protocol, generating analysis models from finite state machine models for each application protocol and filtering the transported data using the analysis models established for each application protocol, as required in claim 10. Similarly, Krumel does not teach or suggest filtering the transported data based on the analysis models established for application protocol, as required in claim 15.

The present invention relates to a method for securing logical access to information and/or computing resources in a group of computer equipment. The group of computer equipment exchange data with a computer telecommunication network, according to at least one application protocol. As recited in claim 10, the inventive method comprises the following steps: defining a finite-state machine for each application protocol; modelling each finite-state machine established for each application protocol in the form of a model; generating, from each model, an analysis module for each application protocol by means of an interpreter; and filtering the transported data in an operating system by means of the analysis modules.

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As detailed in paragraphs 72-76 of the specification, the present invention advantageously filters the transported data and then detects and blocks a large number of "application" attacks. In paragraph 4 of the specification, applicant defines an "application" attack as an attack that uses either the vulnerability of an "application" protocol; the vulnerabilities linked to the implementation of an "application" protocol by a developer; or the vulnerabilities linked to the use of an application, particularly by a network administrator.

Whereas, Krumel describes methods for ensuring computer security and data protection by filtering Internet data packets. Krumel provides a stateful packet filtering hub for examining network packet and determining whether the packet is allowed into or out of a network (see Krumel, col. 2, lines 16-66). The packet characteristic logic 22 examines the packet data to determine packet characteristic data, such as the packet type, datagram boundaries, packet start, packet end, data offset counts, protocols, flags and receiving ports. These packet data characteristics are then provided to packet type filters 26 and state rules filters 42 which make a decision whether the packet should be passed or failed. (See Krumel, col. 6, lines 43 to col. 7, lines 21).

Krumel's stateful packet filtering hub, enabling parallel filtering, consists of packet characteristics logic 22, packet type filters 26, and state rules filters 42 (see Krumel, col. 2, lines 19-20; col. 6-15-17). Although Krumel describes that "[t]he filters of packet type filters 26 are preferably expressed as fixed state machines" (Krumel, col. 6, lines 55-57), but contrary to the Examiner's erroneous assertion, Krumel does not teach or suggest "defining a finite-state machine for each application protocol," as required in claim 10. That is, Krumel does not take into account the application protocols when defining the fixed state machines as required by the claims of the present invention. At best, Krumel considers protocol (one of the packet characteristic data) only to make a decision whether the packet should be passed or failed. Accordingly, contrary to the

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Examiner's assertion, Krumel does not anticipate the claims of the present invention because Krumel does not teach or suggest all of the claim elements of the present invention.

"To imbue one of ordinary skill in the art with knowledge of the present invention, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim of the insidious effect of hindsight syndrome, wherein that which only the inventor taught is used against the teacher." *W.L. Gore & Assoc. v. Garlock, Inc.*, 721 F.2d 1540, 1553 (Fed. Cir. 1983).

Additionally, it is unclear where Krumel describes that a finite state machine are defined for each application protocol as required in claim 10 and filtering the transported data using analysis module established for each application protocol as required in claim 15. Applicant requests that the Examiner provide a citation in Krumel supporting his untenable position that the finite state machines are defined for each application protocol and analysis modules established for each application protocol.

Moreover, as noted herein, Krumel only examines the packet characteristic data, such as the packet type, datagram boundaries, packet start, packet end, data offset counts, protocols, flags and receiving ports, which the present invention classify these packet characteristic data as being the "transport data." As shown in Fig. 2 and paragraph 68 of the specification, the transport data are data relating or conforming to the application protocol. Although the present invention examines both the "transport data" (packet characteristic data) and the "transported data" (actual data being transported by the packet), the claims of the present invention require that the "transported data" (actual data being transported by the packet) be filtered. Hence, contrary to the Examiner's assertion, Krumel does not teach or suggest filtering the "transported data," as required by the claims of the present invention. Further, applicant respectfully submits Krumel is

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vulnerable to any application attacks arising from the "transported data" and does not address the problem solved by the present invention..

Applicant respectfully submits that the Examiner using hindsight gleaned from the present invention to contradict the clear teaching of the prior art reference to render claims unpatentable. The prior must to be judged based on a full and fair consideration of what that art teaches, not by using applicant's invention as a blueprint for gathering various bits and modifying the pieces in an attempt to reconstruct applicant's invention. The Examiner cannot simply change the principle of the operation of the reference to render the claims unpatentable. Further, one of ordinary skill in the art will not equate the packet characteristic or transport data as being equivalent to the transported data (actual data transported by the packet).

It is well settled that the Examiner cannot contradict the clear teaching of the reference to render the claims unpatentable. Therefore, contrary to the Examiner's assertion, Krumel is not an anticipatory reference to the present invention because Krumel does not teach or suggest all of the elements of the claims of the present invention.

In view of the above, applicant believes the pending application is in condition for allowance.

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Applicant authorized the Commissioner to deduct the 2-month extension of time fee (\$225.00) from our Deposit Account No. 50-0624, under Order No. NY-GRYN 223-US (10505903) from which the undersigned is authorized to draw.

Dated: June 28, 2007

Respectfully submitted,

By 

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